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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/595,331	04/10/2006	Takahiro Wakayama	101403-23	7606

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NORRIS, MC LAUGHLIN & MARCUS, P.A.
875 THIRD AVE
18TH FLOOR
NEW YORK, NY 10022

EXAMINER

ZIMMERMANN, JOHN P

ART UNIT	PAPER NUMBER
2861	

MAIL DATE	DELIVERY MODE
12/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/595,331	WAKAYAMA, TAKAHIRO
Examiner	Art Unit	
John P. Zimmermann	2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 10 April 2006.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-7 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 10 April 2006 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 10 April 2006.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application
- 6) Other: _____.

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d).

Information Disclosure Statement

2. The information disclosure statement (IDS) filed 10 April 2006 has been placed in the application file, and the considered documents have been initialed. Foreign Patent Document #4 was not considered as the document listed, "JP 2002-202789," is a text-to-speech synthesizer and the documents provided by the applicant are reflected as such to include the English abstract. Given that there is no apparent correlation between a text-to-speech synthesizer and the present application, examiner has not considered the document and appropriately crossed it out on the submitted IDS. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "4a" has been used to designate both "the bottom surface of the sheet-entry preventing member" (Figure 1) and "bottom surface of the region for residual ink liquid"

(Specification and Figures 1 & 4-6). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance. Given that the application is subjected to PCT Rule 11, notably PCT 11.13 Special Requirements for Drawings:

- (l) Reference signs not mentioned in the description shall not appear in the drawings, and vice versa.
- (m) The same features, when denoted by reference signs, shall, throughout the international application, be denoted by the same signs.

The examiner respectfully points out that this objection in no way "imposes requirements beyond those imposed by the Patent Cooperation Treaty," and is merely pointing out a specific rule that was not complied with, a rule "to require new drawings if the drawings were published without meeting all of the requirements under the PCT for drawings," that echoes PCT Rule 11.13.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. **Claim 1** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Regarding **claim 1**, the phrase "bag-like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "-like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

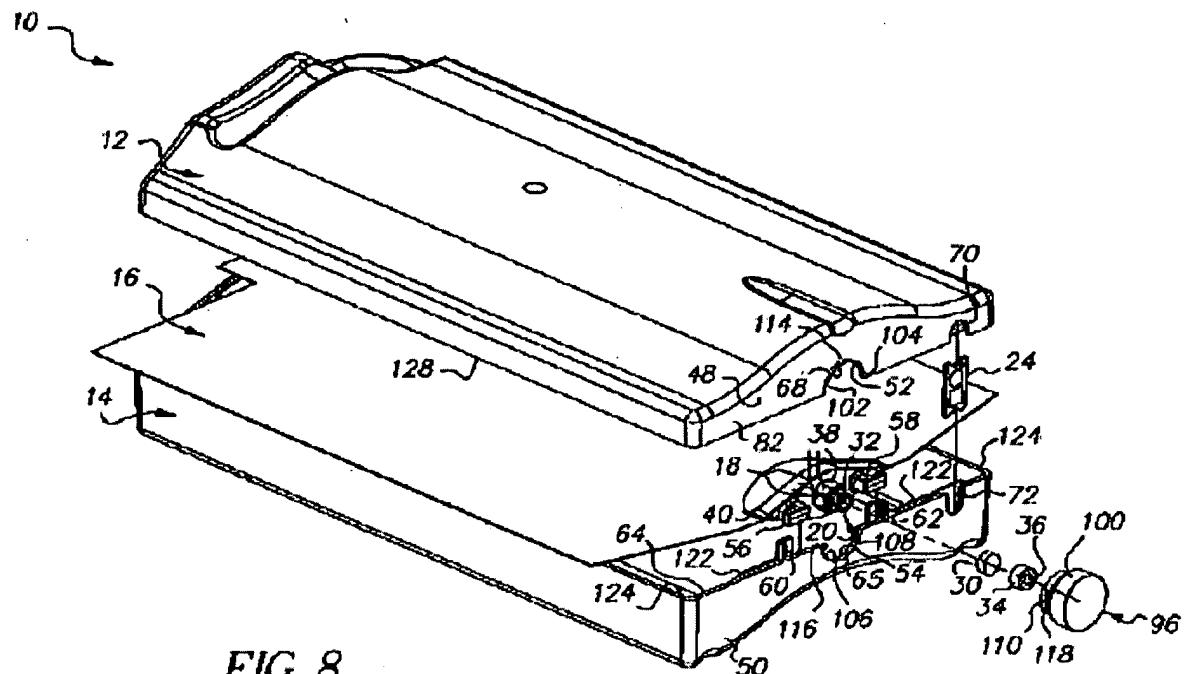
Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

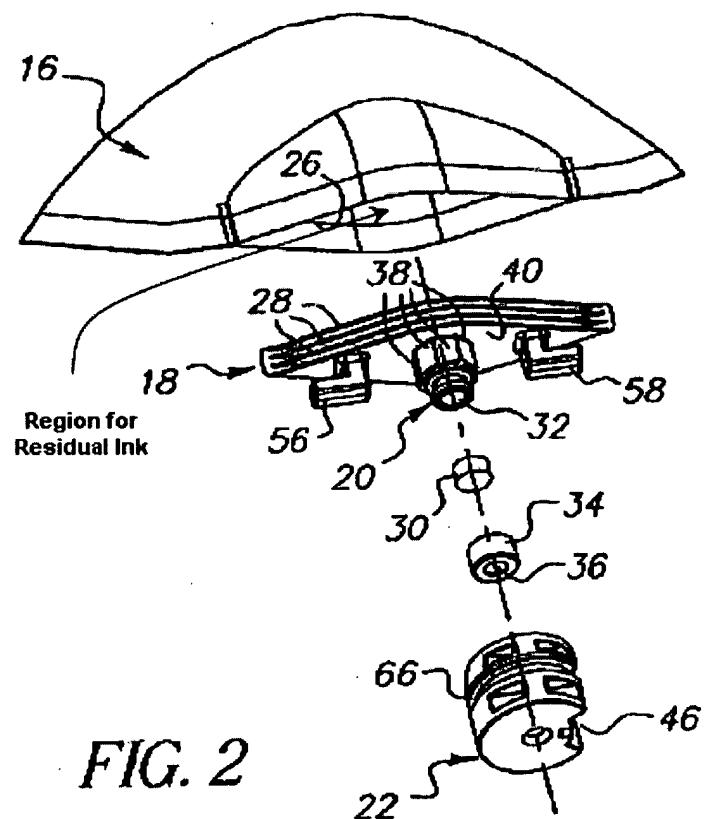
7. **Claims 1-5** are rejected under 35 U.S.C. 102(e) as being anticipated by **Perkins et al.**, (US 6,830,323 B2).

a. As related to independent **claim 1**, Perkins et al. teach an ink container which is mounted on a printing device [i.e. ink cartridge for an ink jet printer], the ink container comprises a bag-like ink container body formed from a flexible sheet (Perkins et al. – Detailed Description, Column 3, Lines 19-49 and Figure 8, Reference #10 & #16, shown below), and an ink supply opening (Perkins et al. – Figure 8, Reference #32, shown

below), one end thereof communicating with the inside of the ink container body and the other end being connected to the printing device.



b. Continuing with **claim 1**, Perkins et al. teach the ink container body is provided with a region for residual ink liquid (Perkins et al. – Figures 2 & 16, Reference Arrows, both shown below), the region being disposed at the bottom, lower than the communicating end of the ink supply opening, and with shape retaining means for keeping the shape and volume of the region for residual ink liquid (Perkins et al. – Figures 2 & 16, Reference #18, #42, & Arrows, both shown below).



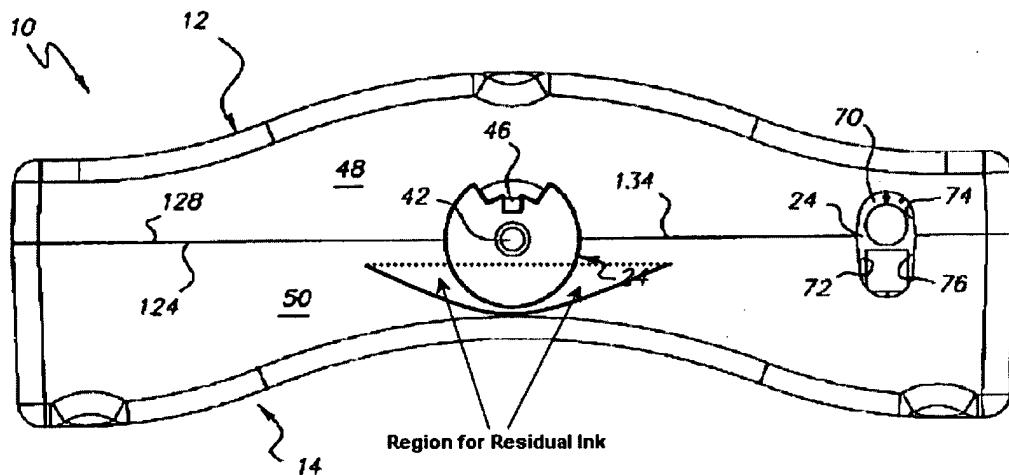
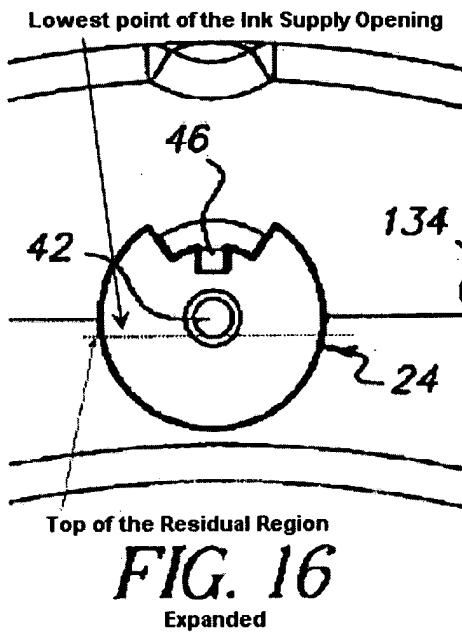


FIG. 16

c. As related to dependent **claim 2**, Perkins et al. teach the region for residual ink liquid consists of a part of the bottom portion of the ink container body and is disposed below and on the border of the ink supply opening (Perkins et al. - Figures 2 & 16, Reference Arrows, both shown above) wherein the bottom portion of the ink container body rests on the bottom portion of the ink container [i.e. bottom housing half] (Perkins et al. - Figures 8 & 16, Reference #14, both shown above).

d. As related to dependent **claim 3**, Perkins et al. teach the region for residual ink liquid is disposed in such a manner that a top surface thereof coincides with the lowest point of the communicating end of the ink supply opening (Perkins et al. – Expanded Figure 16, Reference Arrows, shown below).



e. As related to dependent **claim 4**, Perkins et al. teach the shape retaining means keeps the shape and volume of the region for residual ink liquid by preventing the sheet of the ink container body from entering into the region for residual ink liquid when the sheet moves [i.e. the sheet is secured in place] (Perkins et al. – Detailed Description, Column 4, Lines 30-53 and Figure 8, shown above).

f. As related to dependent **claim 5**, Perkins et al. teach the shape retaining means is fixed to either or both of the ink container body and the ink supply opening (Perkins et al. – Detailed Description, Column 3, Lines 37-42 and Figure 2, Reference #16, #18, & #28, shown above).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

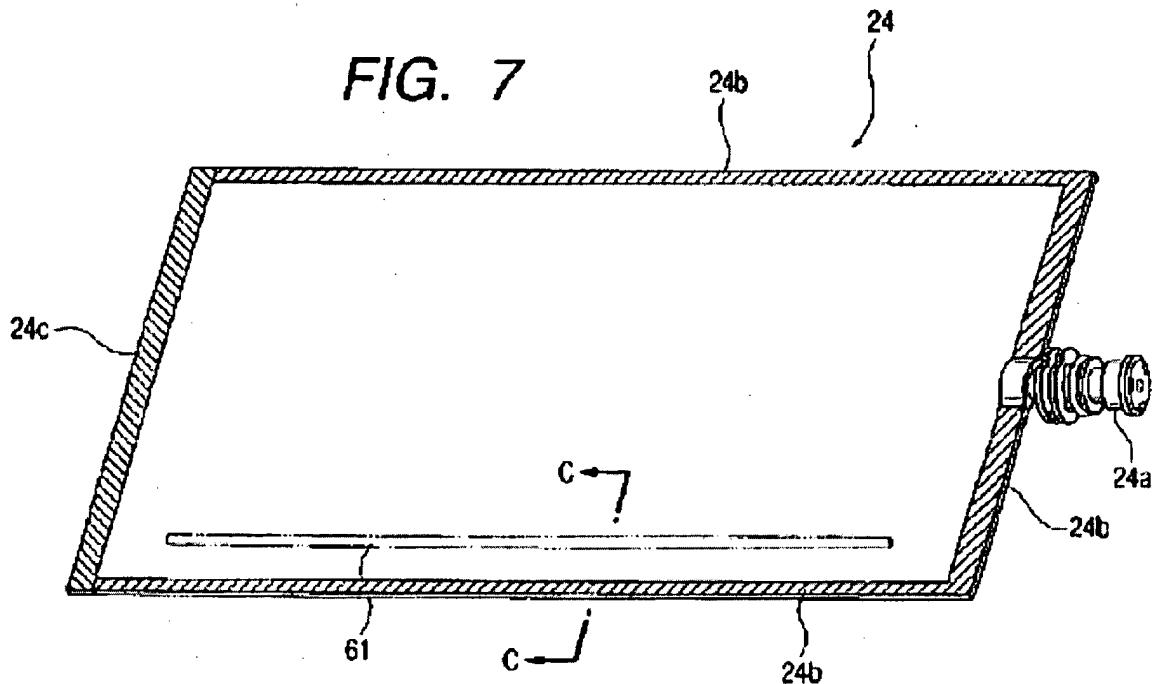
9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. **Claims 6-7** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Perkins et al.**, (US 6,830,323 B2) and further in view of **Ishizawa et al.**, (US 6,848,775 B2) and **Sasaki et al.**, (US 5,566,851).

a. As related to dependent **claim 6**, Perkins et al. teach the shape retaining means can prevent the sheet from entering the area, but *do not* specifically teach the member having an orifice pore which allows ink to pass through. **However**, Ishizawa et al. teaches a specific shape retaining means [i.e. contact prevention member] housed in an ink pack of similar structure, form and function to that of Perkins et al (Ishizawa et al. – Abstract and Figure 7, Reference #61, shown below).

FIG. 7



b. Continuing with **claim 6**, Sasaki et al. clearly teaches a shape retaining means that is a sheet-entry preventing member having an orifice pore [i.e. liquid opening] or a plurality of orifice pores on the top surface thereof, the pore being allowable of coarse-grained ink through-passing (Sasaki et al. – Detailed Description, Column 11, Lines 30-66 and Figures 27-28, Reference #95, #95a, #95b & #95c, all shown below).

FIG. 28

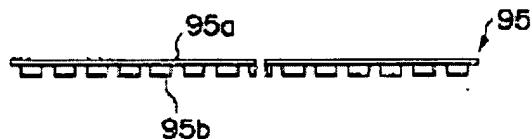


FIG. 27

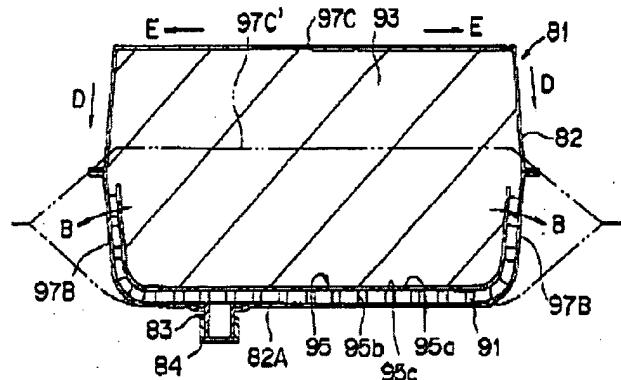
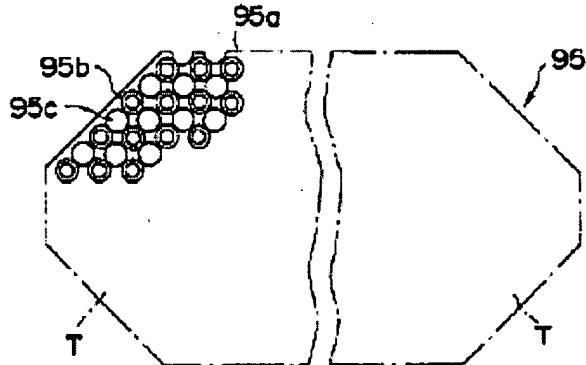


FIG. 29



c. As related to dependent claim 7, while Perkins et al. teach a shape retaining means in this specific embodiment, it is plastic or resin. **However**, it would have been obvious to one of ordinary skill in the art to substitute any suitable material for the plastic or resin to include a non-woven fabric given a preferential design choice. Additionally, Ishizawa et al. teach the shape retaining member could be a number of materials to include metal (Ishizawa et al. – Summary, Column 3, Lines 5-32), thereby reinforcing the obviousness of substituting any suitable material for the shape retaining means. Finally, Sasaki et al. teach a shape retaining member that could be used as a separating or trapping device, given the desire to retain residual ink, it would have been obvious to one of ordinary skill in the art to substitute a cloth or paper material for the shape retaining means, similar to that of an oil filter or trap.

Given the same field of endeavor, specifically an a shape retaining means for use in an ink container body of an ink container, it is apparent that one of ordinary skill in the art at the time the invention was made would have been motivated to combine the ink container with an ink container body and shape retaining means that includes all of the above mentioned characteristics and what is well known in the art of ink containers to include ink container bodies as taught by Perkins et al. with the types and locations of shape retaining means in a similar ink container body as taught by Ishizawa et al., along with the specific shape retaining means that includes an orifice pore or plurality of such pores made of a variety of materials that are well known in the art as taught by Sasaki et al., in an effort to provide a ink container with an ink container body that has sides that are not allowed to come in contact with each other, given that in doing so the flow of ink would be hindered (Ishizawa et al. – Background, Column 2, Lines 5-15), while at the same time providing an ink container body from which all the desired liquid can be taken out of, only leaving a residual ink liquid therein (Sasaki et al – Summary, Column 1, Lines 40-44).

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Higuma (US 6,511,168 B2) teaches an ink container and ink cartridge with an ink container body [pouch] and a shape retaining means incorporated with said ink container body and a residual region in an area lower than the ink supply opening. Seino et al. (US 6,832,830 B2) teach an ink container with and ink container body and a shape retaining means.
12. ***Examiner's Note:*** Examiner has cited particular Figures & Reference Numbers, Columns, Paragraphs and Line Numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages

and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in their entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Zimmermann whose telephone number is 571-270-3049. The examiner can normally be reached on Monday - Thursday, 7:00am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Luu can be reached on 571-272-7663. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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MATTHEW LUU
SUPERVISORY PATENT EXAMINER